

Contents of *Aquaculture*, Volume 89

VOL. 89 NO. 1

15 AUGUST 1990

Genetics and BreedingChromosome study of *Oncorhynchus mykiss* kamloops

M. Flajšhans (Vodňany, Czechoslovakia) and P. Ráb (Liběchov, Czechoslovakia) 1

Husbandry and ManagementHatchery techniques for egg and fry production of *Clarias batrachus* (Linnaeus)

C.F. Knud-Hansen, T.R. Batterson, C.D. McNabb (East Lansing, MI, U.S.A.), Y. Hadiroseyani, D. Dana and H. Muhammed Eidman (Bogor, Indonesia) 9

Growth and yield of mixed-sex, young-of-the-year *Oreochromis niloticus* raised at two densities in earthen ponds in Alabama, U.S.A.

L.L. Lovshin, D. Tave and A.O. Lieutaud (Auburn, AL, U.S.A.) 21

Extending the limits of fish production in manured static-water ponds

J.A. Colman, P. Edwards, M. Yomchinda and C. Pacharaprakiti (Bangkok, Thailand) 27

NutritionFeeding stimulation in sea bream, *Pagrus major*, fed diets supplemented with Antarctic krill meals

C. Shimizu (Hamana-gun and Tokyo, Japan), I. Allahpichay (Hamana-gun, Japan), T. Tokoro (Hamana-gun and Tokyo, Japan) and Y. Shirakawa (Tokyo, Japan) 43

Consumption and apparent dry matter digestibility of aquatic macrophytes by male and female crayfish (*Onconectes virilis*)

P.B. Brown, P. Tazik, M.L. Hooe and W.G. Blythe (Champaign, IL, U.S.A.) 55

Lipid class distribution and fatty acid composition of wild and farmed prawn, *Penaeus monodon* (Fabricius)

C.D. O'Leary (Chatham, Great Britain) and A.D. Matthews (Uxbridge, Great Britain) 65

Physiology and Endocrinology

Changes in ovarian unconjugated and conjugated steroid titers during vitellogenesis in

Penaeus monodon

N.J. Fairs (Liverpool, Great Britain), P.T. Quinlan (Bedford, Great Britain) and L.J.

Goad (Liverpool, Great Britain) 83

VOL. 89 NO. 2

1 SEPTEMBER 1990

Review

Possibilities of sturgeon culture in Central Europe

W. Steffens, H. Jähnichen and F. Fredrich (Berlin-Friedrichshagen, German Democratic Republic) 101

Husbandry and Management

Rainbow trout culture failure in a small lake as a result of massive parasitosis related to careless fish introductions

J. Menezes, M.A. Ramos, T.G. Pereira (Lisbon, Portugal) and A. Moreira de Silva (Azores, Portugal) 123

Toxicities of ammonia and nitrite to *Penaeus monodon* adolescents

J.-C. Chen, P.-C. Liu and S.-C. Lei (Keelung, Taiwan) 127

- The continuous feeding of turbot larvae, *Scophthalmus maximus*, and control of the bacterial environment of rotifers
 F.-J. Gatesoupe (Plouzané, France) 139
- Influence of the timing of initial feeding on the survival and growth of hatchery-reared Atlantic salmon (*Salmo salar* L.)
 D.R. Koss (Winchester, Great Britain) and N.R. Bromage (Stirling, Great Britain) 149

Nutrition

- Effects of dietary vegetable, animal and marine lipids on muscle lipid and hematology of rainbow trout (*Oncorhynchus mykiss*)
 D.H.S. Greene and D.P. Selivonchick (Corvallis, OR, U.S.A.) 165
- Supplemental feeding of *Penaeus monodon* juveniles with diets containing various levels of defatted soybean meal
 F. Piedad-Pascual (Iloilo, The Philippines), E.M. Cruz (Salmiyah, Kuwait) and A. Sumalangcay, Jr. (Iloilo, The Philippines) 183

Short Communication

- Selection of finfish species for aquaculture development in Martinique (F.W.I.)
 E. Thouard, P. Soletchnik and J.-P. Marion (Le Robert, Martinique, French West Indies) 193

Book Review

- Cold-water aquaculture in Atlantic Canada 199

- Books Received 200

- Announcement 200

VOL. 89 NOS. 3/4

15 SEPTEMBER 1990

Diseases, Parasites and Predators

- The role of saithe, *Pollachius virens* L., as a host for the sea lice, *Lepeoptheirus salmonis* Krøyer and *Caligus elongatus* Nordmann
 D.W. Bruno and J. Stone (Aberdeen, Great Britain) 201

Genetics and Breeding

- Survival in early life of Atlantic salmon and rainbow trout: estimates of heritabilities and genetic correlations
 M. Rye, K.M. Lillevik and B. Gjerde (Sunndalsøra, Norway) 209
- Restriction site polymorphism of mitochondrial DNA of the gilthead sea bream (*Sparus aurata*) broodstock in Eilat, Israel
 B. Funkenstein, B. Cavari, T. Stadie and E. Davidovitch (Yaiche) (Haifa, Israel) 217

Husbandry and Management

- The effect of fish density and feeding regimes on individual growth rate and mortality in rainbow trout (*Oncorhynchus mykiss*)
 J.C. Holm (Storebø, Norway), T. Refstie (Sunndalsøra, Norway) and S. Bø (Bergen, Norway) 225
- Survival and growth of milkfish (*Chanos chanos*) larvae in the hatchery. I. Feeding
 H. Eda, R. Murashige, B. Eastham, L. Wallace, P. Bass, C.S. Tamaru and C.-S. Lee (Honolulu, HI, U.S.A.) 233

Nutrition

- Dietary energy sources for the American alligator, *Alligator mississippiensis* (Daudin)
 M.A. Staton (Lae, Papua New Guinea), H.M. Edwards, Jr. (Athens, GA, U.S.A.), I.L. Brisbin, Jr. (Aiken, SC, U.S.A.), L. McNease and T. Joanen (Grand Chenier, LA, U.S.A.) .. 245
- Carbohydrate and fatty acid composition of the rotifer, *Brachionus plicatilis*, fed

monospecific diets of yeast or phytoplankton J.N.C. Whyte and W.D. Nagata (Nanaimo, B.C., Canada)	263
Survival and bioconversion of <i>n</i> -3 fatty acids during early development of dolphin (<i>Coryphaena hippurus</i>) larvae fed oil-enriched rotifers A.C. Ostrowski and S. Divakaran (Waimanalo, HI, U.S.A.)	273
Polyunsaturated fatty acid profiles as a comparative tool in assessing maturation diets of <i>Penaeus vannamei</i> J.S. Lytle, T.F. Lytle and J.T. Ogle (Ocean Springs, MS, U.S.A.)	287
Feather meal as a dietary protein source during parr-smolt transformation in fall chinook salmon L.G. Fowler (Longview, WA, U.S.A.)	301
Physiology and Endocrinology	
Studies on the digestive lipases of milkfish, <i>Chanos chanos</i> I.G. Borlongan (Iloilo City, The Philippines)	315
Lipid malabsorption as a possible cause of anorexia in Zn-deficient juvenile common carp, <i>Cyprinus carpio</i> S.K. Taneja, A. Lath and P. Arya (Chandigarh, India)	327
Cumulative acute physiological stress in Atlantic salmon smolts: the effect of osmotic imbalance and the presence of predators T. Järvi (Sandnes, Norway)	337
Thermal induction of gynogenesis and triploidy in Atlantic salmon (<i>Salmo salar</i>) and their potential interest for aquaculture E. Quillet (Jouy-en-Josas, France) and J.L. Gagnon (Plouzané, France)	351
Clearance of 17 α -ethynyltestosterone from muscle of sex-inversed tilapia hybrids treated for growth enhancement with two doses of the androgen S. Rothbard (Gan Shmuel, Israel), Y. Zohar, N. Zmora (Eilat, Israel), B. Levavi-Sivan, B. Moav and Z. Yaron (Tel Aviv, Israel)	365
Short Communication	
Virus-like particles in erythrocytes of coho salmon (<i>Oncorhynchus kisutch</i>) R.P. Hedrick, T. McDowell and J.M. Groff (Davis, CA, U.S.A.)	377
Technical Paper	
Freeze branding of Atlantic halibut G.M. Berge (Sunndalsøra, Norway)	383
Book Reviews	
Marine plants of the Caribbean	387
Survey of aquaculture in North America	388
Hatchery manual for producing triploid oysters	390
Announcements	391
Author Index	392

